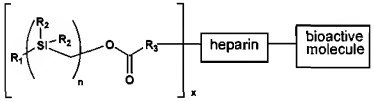
IN THE CLAIMS

Please replace all prior versions or listings of claims with the present claim listing.

Claim Listing

1-3. (cancel)

4. (previously presented) A wound dressing comprising a polymeric film having complexed thereto by hydrophobic interaction a construct comprising a polyanion covalently bonded to a hydrophobic prosthetic moiety, with a first bioactive molecule directly complexed to the polyanion wherein the-polyanion is a construct of Formula I:



I

wherein

R_1 is an C_{1-18} alkyl or C_{6-32} aryl group,

each R_2 is independently selected from the group consisting of C_{1-18} alkyl and C_{6-32} aryl,

R_3 is N or O,

n is a number from 1 to 10,

x is a number from 1 to about 30, and

heparin is a heparin-activity molecule bonded to R_3 via a covalent bond, thereby forming a silyl-heparin covalent complex, with a first bioactive molecule directly complexed to the heparin-activity molecule.

5. (original) The wound dressing of claim 4, wherein the silyl-heparin covalent complex has a dissociation rate from the polymeric film determined by the value of n and x.

6. (original) The wound dressing of claim 4, wherein the silyl-heparin covalent complex comprises [benzyl-bis(dimethylsilylmethyl)]-(N-heparinyl)-carbamate or [benzyl-tris(dimethylsilylmethyl)]-(N-heparinyl)-carbamate.

7. (original) The wound dressing of claim 4, wherein the heparin-activity molecule is heparin, heparan sulfate, hyaluronic acid, dextran, dextran sulfate, chondroitin sulfate, dermatan sulfate, a molecule including a mixture of variably sulfated polysaccharide chains composed of repeating units of D-glucosamine and either L-iduronic or D-glucuronic acids, salts of any of the foregoing, derivatives of any of the foregoing, or combinations of any of the foregoing.

8-11. (cancel)

12. (original) The wound dressing of claim 4, wherein said first bioactive molecule is directly complexed to the heparin-activity molecule by affinity complexation.

13-20. (cancel)

21. (original) The wound dressing of claim 4, wherein the molecule of Formula I comprises an n value equal to 4 and an x value equal to 4.

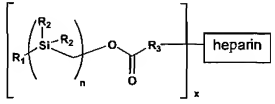
22. (original) The wound dressing of claim 4, wherein the molecule of Formula I comprises an n value equal to 2 and an x value equal to 6.

23-24. (cancel)

25. (original) A method for making a wound dressing, comprising:

providing a wound contacting polymeric film;

providing a molecule of Formula II:



II

wherein

R_1 is an C_{1-18} alkyl or C_{6-32} aryl group,

each R_2 is independently selected from the group consisting of C_{1-18} alkyl and C_{6-32} aryl,

R_3 is N or O,

n is a number from 1 to 10, and

heparin is a heparin-activity molecule bound to the silyl moiety via covalent bonding, wherein x is from 1 to about 30 for each heparin-activity molecule, thereby forming a silyl-heparin complex;

attaching the sily-heparin complex of Formula II to the polymeric film by hydrophobic interaction; and

attaching a first bioactive molecule to the heparin-activity molecule.

26. (original) The method of claim 25, wherein providing the molecule of Formula II further comprises selecting a dissociation rate of the molecule of Formula II from the polymeric film determined by the value of n and x.

27. (original) The method of claim 25, further comprising attaching a second bioactive molecule to the heparin-activity molecule.

28. (original) The method of claim 27, wherein the second bioactive molecule is an antibiotic.

29-33. (cancel)

34. (original) A method for treating a wound, comprising:

providing a wound dressing of claim 4; and

contacting the wound dressing to the wound.

35. (original) The method of claim 34, wherein the wound dressing comprises a silyl-heparin complex that has a dissociation rate from the contacting surface determined by the value of n and x.

36. (original) The method of claim 34, wherein the wound dressing comprises a [benzyl-bis(dimethylsilylmethyl)]-(N-heparinyl)-carbamate or [benzyl-tris(dimethylsilylmethyl)]-(N-heparinyl)-carbamate silyl-heparin complex.

37. (original) The method of claim 34, wherein the wound is a surface lesion.

38. (original) The method of claim 34, wherein the wound is an internal wound.

39. (original) The method of claim 38, wherein the wound dressing comprises a biodegradable polymeric film.

40. (original) The method of claim 34, wherein the wound dressing comprises a first bioactive molecule that is an adhesive molecule, whereby the contacting surface is non-thrombogenic and promotes cellular adhesion.

41. (original) The method of claim 34, wherein the wound dressing further comprises a second bioactive molecule.

42. (original) The method of claim 41, wherein the second bioactive molecule is an antibiotic.